

Notice of Allowability

Application No.

10/025,220

Examiner

Jyoti Nagpaul

Applicant(s)

ULIN, JOHAN URBAN INGEMAR

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to October 2, 2006.
2. ☒ The allowed claim(s) is/are 1-4, 7-13, 22 and 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Andrew Waxman on December 21, 2006.

The application has been amended as follows:

Cancel Claims 5-6 and 14-21.

Claim 1. (Currently Amended) A seal mechanism for confining a chemical reaction in a reaction vessel having an inner volume that is accessible through a penetrable, self-sealing diaphragm covering an opening of the reaction vessel and through which reagents are at least one of injected and extracted, wherein the inside of the vessel is accessible through a portion of the self-sealing diaphragm; said seal mechanism comprising

a movable plunger cooperating with said self-sealing diaphragm, said plunger being reversibly operable between a retracted position wherein the inner volume of the reaction vessel is accessible through the diaphragm, and an operational position in abutting contact with the diaphragm, wherein

the plunger is effective to counteract an outward deflection of the diaphragm caused by an increase of internal pressure in the vessel, and in the operational position, the movable plunger is in abutting contact with ~~[[a]]~~ the portion of the diaphragm through which the inner volume of the reaction vessel is accessible.

Claim 7. (Currently Amended) The seal mechanism of claim 2, wherein the drive unit controls the pivoting motions and applied pressure of the plunger via ~~[[the]]~~ a link mechanism.

Claim 8. (Currently Amended) An apparatus for performing chemical reactions, comprising:

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one or more reaction vessels supported and successively movable to a position for microwave energy exposure, each reaction vessel having a penetrable, self sealing diaphragm covering an opening of the reaction vessel, wherein the inside of the vessel is accessible through a portion of the self-sealing diaphragm;

a dispenser capable of penetrating the self-sealing diaphragm for at least one of injection and extraction of reagents into the reaction vessel where the chemical reaction takes place; and

a movable plunger cooperating with said one or more reaction vessels in the microwave exposure position, the plunger being reversibly operable between a retracted position wherein an inner volume of the vessel is accessible through the diaphragm, and an operational position in abutting contact with the self sealing diaphragm, wherein

the plunger is effective to counteract an outward deflection of the diaphragm caused by an increase of internal pressure in the vessel and in the operational position, the movable plunger is in abutting contact with ~~[[a]]~~ the portion of the diaphragm through which the inner volume of the reaction vessel is accessible.

Claim 10. (Currently Amended) The apparatus of claim 9, wherein the plunger is associated with the driver by which the plunger is pivoted via ~~[[the]]~~ link mechanism.

The following is an examiner's statement of reasons for allowance:

Prior art fails to teach or fairly suggest a seal mechanism for confining a chemical reaction in a reaction vessel having an inner volume that is accessible through a penetrable, self-sealing diaphragm covering an opening of the reaction vessel and through which reagents are at least one of injected and extracted, wherein the inside of the vessel is accessible through a portion of the self-sealing diaphragm. The seal mechanism further comprising a movable plunger cooperating with the self-sealing diaphragm, the plunger being reversibly operable between a retracted position wherein the inner volume of the reaction vessel is accessible through the diaphragm, and an operational position in abutting contact with the diaphragm, wherein the plunger is effective to counteract an outward deflection of the diaphragm caused by an increase of internal pressure in the vessel, and in the operational position, the movable

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plunger is in abutting contact with the portion of the diaphragm through which the inner volume of the reaction vessel is accessible.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Nagpaul whose telephone number is 571-272-1273. The examiner can normally be reached on Monday thru Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JN


Jill Warden
Supervisory Patent Examiner
Technology Center 1700